AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A dental instrument for distributing a restorative material on a tooth surface, the instrument comprising:

an elongate body comprising a handle portion and a first working end extending therefrom; and

a first roller tip having a proximal end rotatably mounted on the first working end and a distal end extending away from the first working end, the first roller tip being rotatable about a center axis of the first working end and sized to distribute a restorative material on a tooth surface, and

wherein the first roller tip comprises at least one material selected from the group consisting of: a silicone, a thermoplastic elastomer, and polyurethane,

wherein the first roller tip has a Shore A hardness in the range of 20-60, and

wherein the first roller tip has a smooth outer surface and a surface energy less than 25mN/m adapted to provide low adhesion of a restorative material to the smooth outer surface and bubble-free distribution of a restorative material on a tooth surface.

2. (Original) The dental instrument of claim 1 wherein the first roller tip is removable from the first working end.

3. (Original) The dental instrument of claim 2 further comprising at least one additional roller tip mountable on the first working end whereby the at least one additional roller tip is interchangeable with the first roller tip.

4. (Canceled)

5. (Currently Amended) The dental instrument of claim [[4]] 1 wherein the handle portion has a center axis and the center axis of the first working end is coaxial with the center axis of the handle portion.

6. (Currently Amended) The dental instrument of claim [[4]] 1 wherein the handle portion has a center axis and the center axis of the first working end is angled 45-90° with respect to the center axis of the handle portion.

7. (Original) The dental instrument of claim 1 wherein the elongate body comprises a plastic material containing 2-30 wt.% of a friction-reducing additive.

8. (Original) The dental instrument of claim 7 wherein the friction-reducing additive is polytetrafluoroethylene.

9. (Original) The dental instrument of claim 8 wherein the plastic material comprises 5-15 wt.% of a polytetrafluoroethylene friction-reducing additive.

10. (Original) The dental instrument of claim 7 wherein the plastic material is selected from the group consisting of polyetherimide, polybutylene terephthalate, polyphenylsulfone, polyethersulfone, polyphthalamid and polyetheretherketone.

11. (Original) The dental instrument of claim 7 wherein the plastic material is reinforced with at least one of glass fibers and carbon fibers.

12. (Original) The dental instrument of claim 1 wherein the elongate body comprises a plastic material containing friction-reducing additive in an amount sufficient to provide a kinetic coefficient of friction of less than 0.2 between the first working end and the first roller tip.

13. (Original) The dental instrument of claim 1 wherein the roller tip comprises at least one material selected from the group consisting of: a silicone, a thermoplastic elastomer, and polyurethane.

14. (Original) The dental instrument of claim 1 wherein the roller tip has a Shore A hardness in the range of 20-60.

15. (Previously Presented) The dental instrument of claim 1 wherein the smooth outer surface of the first roller tip is substantially uniformly cylindrical.

16. (Previously Presented) The dental instrument of claim 1 wherein the smooth outer surface of the first roller tip has a maximum circumference adjacent the handle portion and an inward taper from the maximum circumference to a minimum circumference furthest from the handle portion.

17. (Original) The dental instrument of claim 1 further comprising a bushing rotatably mounted on the first working end between the first working end and the first roller tip whereby the first roller tip is rotatable relative to the first working end by means of the rotatable bushing.

18. (Original) The dental instrument of claim 17 wherein the first working end includes a ridge portion and the bushing includes a clip portion adapted to engage the ridge portion.

19. (Original) The dental instrument of claim 1 further comprising a rolling element bearing mounted on the first working end between the first working end and the first roller tip whereby the first roller tip is rotatable relative to the first working end by means of the rolling element bearing.

20. (Previously Presented) The dental instrument of claim 1 further comprising a second working end for inserting into an oral cavity and a second roller tip having a proximal end rotatably mounted on the second working end and a distal end extending away from the second working end, the second roller tip being rotatable about a center axis of the second working end to distribute a restorative material on a tooth surface.

21. (Original) The dental instrument of claim 20 wherein the second roller tip is removable from the second working end.

22. (Original) The dental instrument of claim 21 further comprising at least one additional roller tip mountable on the first and second working ends whereby the at least one additional roller tip is interchangeable with the first and second roller tips.

23. (Original) The dental instrument of claim 20 further comprising a bushing rotatably mounted on the second working end between the second working end and the second roller tip whereby the second roller tip is rotatable relative to the second working end by means of the rotatable bushing.

24. (Original) The dental instrument of claim 23 wherein the second working end includes a ridge portion and the bushing includes a clip portion adapted to engage the ridge portion.

25. (Original) The dental instrument of claim 20 further comprising a rolling element bearing mounted on the second working end between the second working end and the second roller tip whereby the second roller tip is rotatable relative to the second working end by means of the rolling element bearing.

26. (Previously Presented) A dental instrument for distributing a restorative material on a tooth surface, the instrument comprising:

an elongate body having a first working end and a second working end, each with a center axis, and a handle portion located therebetween;

a bushing rotatably mounted on each of the first and second working ends; and

a roller tip mounted on each bushing and rotatable with the bushing about the center axis of the respective first and second working ends, each roller tip mounted at a proximal end thereof and having a distal end extending away from the respective working end, and each roller tip sized to distribute a restorative material on a tooth surface, wherein the roller tips are removable from the elongate body,

wherein the roller tips each comprise at least one material selected from the group consisting of: a silicone, a thermoplastic elastomer, and polyurethane,

wherein the roller tips each have a Shore A hardness in the range of 20-60, and

wherein the roller tips each have a smooth outer surface and a surface energy less than 25mN/m adapted to provide low adhesion of a restorative material to the smooth outer surface and bubble-free distribution of a restorative material on a tooth surface.

27. (Original) The dental instrument of claim 26 wherein the handle portion includes a center axis, and wherein the center axis of the first working end is coaxial with the center axis of the handle portion and the center axis of the second working end is angled 45-90° with respect to the center axis of the handle portion.

28. (Original) The dental instrument of claim 26 wherein the elongate body comprises a plastic material containing 2-30 wt.% of a friction-reducing additive.

29. (Original) The dental instrument of claim 28 wherein the friction-reducing additive is polytetrafluoroethylene.

30. (Original) The dental instrument of claim 29 wherein the plastic material comprises 5-15 wt.% of a polytetrafluoroethylene friction-reducing additive.

31. (Original) The dental instrument of claim 26 wherein the bushing comprises a plastic material containing 2-30 wt.% of a friction-reducing additive.

32. (Original) The dental instrument of claim 31 wherein the friction-reducing additive is polytetrafluoroethylene.

33. (Original) The dental instrument of claim 32 wherein the plastic material comprises 5-15 wt.% of a polytetrafluoroethylene friction-reducing additive.

34. (Original) The dental instrument of claim 26 wherein at least one of the elongate body and the bushings comprises a plastic material containing a friction-reducing additive in an amount sufficient to provide a kinetic coefficient of friction of less than 0.2 between the first and second working ends and the respective roller tips.

35. (Original) The dental instrument of claim 34 wherein the friction-reducing additive is polytetrafluoroethylene.

36. (Original) The dental instrument of claim 26 wherein the elongate body and the bushings each comprise a plastic material containing a friction-reducing additive in an amount sufficient to provide a kinetic coefficient of friction of less than 0.2 between the first and second working ends and the respective bushings.

37. (Original) The dental instrument of claim 36 wherein the friction-reducing additive is polytetrafluoroethylene.

38-39. (Canceled)

40. (Previously Presented) The dental instrument of claim 26 wherein the smooth outer surface of at least one of the roller tips is substantially uniformly cylindrical.

41.(Previously Presented) The dental instrument of claim 26 wherein the smooth outer surface of at least one of the roller tips has a maximum circumference adjacent the handle portion and an inward taper from the maximum circumference to a minimum circumference furthest from the handle portion.

42. (Original) The dental instrument of claim 26 wherein the first and second working ends each include a ridge portion and each bushing includes a clip portion adapted to engage the respective ridge portion.

43. (Original) The dental instrument of claim 26 wherein the roller tips are removably mounted on the bushings whereby the roller tips are removable from the elongate body and the bushings.

44. (Original) The dental instrument of claim 43 further comprising at least one additional roller tip removably mountable on the bushings whereby the at least one additional roller tip is interchangeable with the mounted roller tips.

45. (Original) The dental instrument of claim 26 wherein the roller tips are substantially permanently mounted on the bushings and the bushings are removably mounted on the first and second working ends such that the roller tips are removable with the bushings from the elongate body.

46. (Original) The dental instrument of claim 45 further comprising at least one additional roller tip substantially permanently mounted on a respective additional bushing, wherein the respective additional bushing is removably mountable on the first and second working ends whereby the at least one additional roller tip and respective bushing are interchangeable with the mounted roller tips and bushings.

47. (Previously Presented) A dental instrument for distributing a restorative material on a tooth surface, the instrument comprising:

an elongate body having a handle portion with a center axis, a first working end with a center axis substantially coaxial with the handle portion center axis, and a second working end with a center axis angled 45-90° relative to the handle portion center axis, wherein the elongate body comprises a plastic material containing polytetrafluoroethylene;

a bushing rotatably mounted on each of the first and second working ends, wherein the bushing comprises a plastic material containing polytetrafluoroethylene; and

a roller tip mounted on each bushing and rotatable with the bushing about the center axis of the respective first and second working ends, each roller tip mounted at a proximal end thereof and having a distal end extending away from the respective working end, and each roller tip sized to distribute a restorative material on a tooth surface, wherein the roller tips are removable from the elongate body,

wherein the roller tips each comprise at least one material selected from the group consisting of: a silicone, a thermoplastic elastomer, and polyurethane,

wherein the roller tips each have a Shore A hardness in the range of 20-60, and

wherein the roller tips each have a smooth outer surface and a surface energy less than 25mN/m adapted to provide low adhesion of a restorative material to the smooth outer surface and bubble-free distribution of a restorative material on a tooth surface.

48. (Original) The dental instrument of claim 47 wherein the plastic materials of the bushings and the elongate body each contain 2-20 wt.% polytetrafluoroethylene.

49. (Original) The dental instrument of claim 48 wherein the plastic materials of the bushings and the elongate body each contain 5-15 wt.% polytetrafluoroethylene.

50. (Original) The dental instrument of claim 47 wherein the elongate body and the bushings together comprise an amount of polytetrafluoroethylene sufficient to provide a kinetic coefficient of friction of less than 0.2 between the first and second working ends and the respective bushings.

51-52. (Canceled)

53. (Previously Presented) The dental instrument of claim 47 wherein the smooth outer surface of at least one of the roller tips is substantially uniformly cylindrical.

54. (Previously Presented) The dental instrument of claim 47 wherein the smooth outer surface of at least one of the roller tips has a maximum circumference adjacent the handle portion and an inward taper from the maximum circumference to a minimum circumference furthest from the handle portion.

55. (Original) The dental instrument of claim 47 wherein the first and second working ends each include a ridge portion and each bushing includes a clip portion adapted to engage the respective ridge portion.

56. (Original) The dental instrument of claim 47 wherein the roller tips are removably mounted on the bushings whereby the roller tips are removable from the elongate body and the bushings.

57. (Original) The dental instrument of claim 56 further comprising at least one additional roller tip removably mountable on the bushings whereby the at least one additional roller tip is interchangeable with the mounted roller tips.

58. (Original) The dental instrument of claim 47 wherein the roller tips are substantially permanently mounted on the bushings and the bushings are removably mounted on the first and second working ends such that the roller tips are removable with the bushings from the elongate body.

59. (Original) The dental instrument of claim 58 further comprising at least one additional roller tip substantially permanently mounted on a respective additional bushing, wherein the respective additional bushing is removably mountable on the first and second working ends whereby the at least one additional roller tip and respective bushing are interchangeable with the mounted roller tips and bushings.